University of Kansas Hybrid Testing

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http://kuhep4.phsx.ukans.edu/~hep/run2b/

Bare Hybrid Probing

Functional Testing

Hybrid Debugging

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Bare Hybrid Probing

- Automatic test stand
- Continuity test over 500 points
- Shorts test on order of (types of pad)! points
- Time to align ≈ 20 min
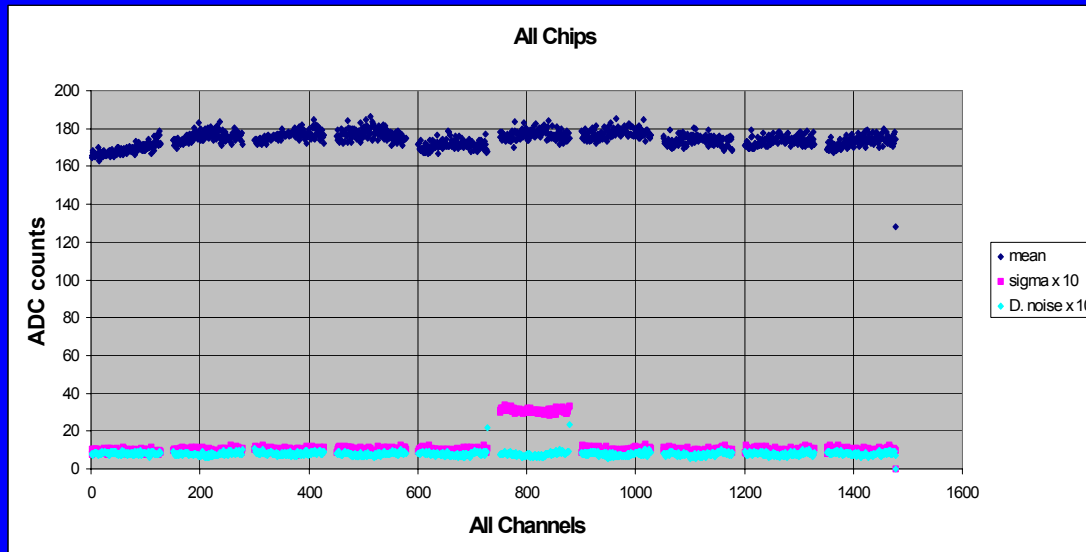- Time to test ≈ 3 hr (automated so person just has to observe)

Excel spreadsheet output

Probe Station		ECS-18			
TYPE	PAD	TYPE	PAD	Resistance	Manual
GND	JP4.1	GND	C1.2	0	
GND	JP4.1	GND	C2.2	0	
GND	JP4.1	GND	C3.2	0	
GND	JP4.1	GND	C4.2	1	
GND	JP4.1	GND	C11.2	1	
GND	JP4.1	GND	C12.2	6	
GND	JP4.1	GND	C21.2	0	
GND	JP4.1	GND	C22.2	1	
GND	JP4.1	GND	C31.2	1	
GND	JP4.1	GND	C32.2	2	
GND	JP4.1	GND	C41.2	1	
GND	JP4.1	GND	C42.2	1	
GND	JP4.1	GND	C51.2	1	
GND	JP4.1	GND	C52.2	2	
GND	JP4.1	GND	C61.2	2	
GND	JP4.1	GND	C62.2	5	
GND	JP4.1	GND	C201.2	1	
GND	JP4.1	GND	C202.2	1	
GND	JP4.1	GND	C211.2	0	
GND	JP4.1	GND	C212.2	3	
GND	JP4.1	GND	C221.2	0	
GND	JP4.1	GND	C222.2	1	
GND	JP4.1	GND	C231.2	1	
GND	JP4.1	GND	C232.2	1	
GND	JP4.1	GND	CONN1.7	0	
GND	JP4.1	GND	CONN1.9	0	
GND	JP4.1	GND	CONN1.17	1	
GND	JP4.1	GND	CONN1.21	0	
GND	JP4.1	GND	CONN1.27	0	
GND	JP4.1	GND	CONN1.33	0	
GND	JP4.1	GND	CONN1.41	0	
GND	JP4.1	GND	CONN1.46	1	
GND	JP4.1	GND	CONN1.49	0	
GND	JP4.1	GND	JP1.1	2.147E+09	

Stuffed Hybrid Test Stand

- Test stand with purple card working!
- Yet to be done
  - Build interface for logic analyzer
  - Learn how to debug with logic analyzer

All Chips

ADC counts vs All Channels

Legend:
- mean
- sigma x 10
- D. noise x 10

L2A output from test stand